TELEDYNE RYAN AERONAUTICAL

ACHIEVER

1922 — A SPIRIT OF ACHIEVEMENT — 1987

Hudson Drake

President, Teledyne Ryan Aeronautical

Welcome to Teledyne Ryan Aeronautical's 65th anniversary year open house!

There is much to see, learn and do during your visit. Much will concern the history of accomplishments by this company since the year 1922. And rightly so. Dozens of pioneering aviation and aerospace contributions are included in our company's heritage.

Next month, the world will pay tribute during the Paris Air Show to the Ryan "Spirit of St. Louis" and the 60th anniversary of Charles A. Lindbergh's epic flight from New York to Paris in 1927.

In manned and unmanned aircraft design-development alike, the Ryan company is distinguished by boldness and a spirt of achievement.

No stronger testimonial to that exists than the operational aircraft on display. The Apache AH-64A advanced attack helicopter is the unquestioned leader throughout the world in vertical flight systems. From the drawing boards up, it exists as a totally new development—the first pure helicopter of its kind—for combat missions.

Three squadrons of Army Apaches are combat ready today, thanks to the expertise, the dedication and work by employees here and their counterparts on the Apache team. More squadrons are being formed, giving our Army combat capabilities it never before has enjoyed.

We're also helping build the F/A-18 Hornet. An operational version is also available for your inspection, already classed as one of the most advanced combat aircraft of its kind. No longer in production is an F-5 Freedom Fighter also parked in the inspection area. We're fiercely proud to have been associated over many years here with its production programs.

Our Firebee aerial target systems and a new generation Firebolt are on display. Few products have distinguished our company more prominently or successfully over the years than our unmanned jet-powered aerial target systems.

For the first time, anywhere, you will be able to inspect the company's newest product, the "Scarab," and Unmanned Vehicle System now in flight tests.

Apart from aircraft and product displays, our open house program invites your inspection of our tooling operations, our materials and processing laboratory, composite fabrication and final assembly lines. Videotaped presentations have been created and are positioned strategically throughout your tour to help describe our operations.

We selected as our 65th anniversary year theme: "1987: The Spirit Of Achievement!" I believe it captures the essence of our company's personality. More than that, it projects for decades more to come a future of accomplishments yet to unfold.

In this year of 1987, we're restless with ambitions for the future.

TELEDYNE RYAN AERONAUTICAL

ACHIEVER

April 1987

Vol. 3 **No. 4**

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The *ACHIEVER* is published monthly by Teledyne Ryan Aeronautical as an official employee communications periodical. Unsolicited materials are accepted for publication. They may be submitted to the *ACHIEVER* at 2701 North Harbor Drive, San Diego, CA 92138. Phone: (Area Code 619) 291-7311, Ext. 1368.

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ABOUT OUR COVER — The time for celebration is at hand! First, there is Teledyne Ryan Aeronautical's 65th anniversary, an occasion for Saturday, Apr. 25's open house festivities. For all but 15 of those years, Edward D. Sly has been a part of the company. And his 50th service anniversary is also acknowledged. Included in Ed Sly's service are scores of milestone programs for which the company earned global respect. Artist Gary Rennilson blended all of these elements into this month's cover as a tribute to the company, to Ed Sly and to all at Ryan who've helped nourish its growth and prosperity.

ACHIEVER STAFF CREDITS: Graphic Arts Supervisor, **Don LeBel**; Typesetting, **Richard Ryce**; Pasteup, **Chuck Preble**; Reprographics, **Mike Cronin, Jeff Jeffries, George Masing, John Saxton**; Photography, **Dave Gossett.**

Firebee Operations Boost Navy Success

A series of BQM-34S Firebee aerial target system operations conducted at the Pacific Missile Test Center, Point Mugu, Calif. in support of a key missile program has been credited for the successful conclusion of that program.

In a letter to Teledyne Ryan Aeronautical President Hudson B. Drake last month, Rear Admiral R. G. Gentz praised the contributions to the Rolling Airframe Missile program made by 27 Firebee flights between October 1986 and February 1987.

"These targets were used in very demanding single and dual presentations at various altitudes between 30 and 1,000 feet and included one of the most complex payload configurations employed in aerial targets," noted the Center's Commander.

TRA representative Larry Hurley, assigned to the Center's Targets Department, was singled out by Admiral Gentz for "significant" contributions to the success of the program.

"We are looking forward to continued success with Firebee target (systems) in support of future Rolling Airframe Missile operations as well as those to be conducted in support of other weapons systems development tests," he emphasized.

His letter was accompanied by a Navy dispatch from the Commander, Naval Sea Systems Command in Washington, D.C. that lauded the "remarkable coordination and cooperation" of support units engaged in the tests.

Firebees used in the test program were those included in an order for 87 subsonic BQM-34S Firebees placed by the Navy with TRA in 1985. This order was completed last month with deliveries of Firebees to Point Mugu, Hawaii and Puerto Rico shore commands.

Work is to begin in July on a follow-on requirement for 80 Firebees more with deliveries to start in September this year.

The requirements mark for TRA more than 30 years in which it has designed, developed and produced a family of Firebee aerial target systems for U.S. and military services throughout the free world.

Open House Events

Saturday, April 25, 1987

10:30 a.m	Gates Open, Tours Start
10:30 a.m. - Noon	Crawfish Pie Stage Entertainment
Noon	Welcome By Hudson Drake; Presentations
12:30 p.m. - 2:00 p.m	Crawfish Pie Stage Entertainment
2:00 p.m. - 2:30 p.m	Clogging Company
2:30 p.m. - 3:30 p.m	Dixieland Jazz Entertainment

On-Going Attractions

All Day	California Clowns Balloon Sculpting, Face Painting
10:30 - 1:30 p.m	"Star The Mime"

Tours, facility inspection, Apache AH-64A, F/A-18, antique Ryan aircraft on display throughout program.

3:30 p.m	Program Concludes Gates Close

Message From The Top!

"On behalf of Teledyne's family of companies, I am pleased to extend our congratulations to Teledyne Ryan Aeronautical on the occasion of your 65th anniversary being observed this month.

"The rich heritage of pioneering achievement in aircraft and aerospace by your company is a legacy in which all Teledyne companies can share genuine pride.

"The vital work in which you are engaged today with the Apache AH-64 advanced attack helicopter, Firebee aerial target systems and other programs continues to distinguish the qualities of your contributions to our industry and the Nation.

"Please accept my good wishes for continued success and prosperity in the years that lie ahead."

DR. GEORGE A. ROBERTS
President and CEO
Teledyne, Inc.

People Made It Happen!

Teledyne Ryan Aeronautical's 1987 open house program on Saturday, Apr. 25 followed nearly three month's of planning by a committee of nearly 20 employees, each of whom gave representation to key areas.

TRA Human Resources Director Bob Gresham provided overall direction with organizational and administrative assistance from Nicki DeNecochea. Art Services Supervisor Don LeBel and staff created multitudes of signs, posters and flyers; Reprographics Supervisor Mike Cronin and his team reproduced the signs, posters and flyers and arranged staging and audio systems. Bob Nelson's Plant Maintenance and Engineering Services team, with Bob Schwartz and staff provided physical plant support. Mary Ladewig helped guide budgeting operations. And Leo Balsamo Security department furnished a staff of security personnel.

There also were Chief Photographer Dave Gossett and interns Jack Garrett and Bob Jordan whose video presentations were created for the program; Roger Hoover's staff, including Mike Yavno, Rich Ebel, Sam Van Horn, Bob Almada, Mike Cromier and others involved in creating the tour route and attractions.

And finally, there is the staff of volunteers whose assistance in guiding open house crowds helped make the event more enjoyable for all.

Vietnam Era RPVs Win Air Force Call-Up

More than 50 Teledyne Ryan Aeronautical Remotely Piloted Vehicles (RPVs) of the kinds used to conduct more than 3,000 combat missions during the Vietnam hostilities are being restored to operational status at Hill AFB, Utah.

Designated SC anu SD versions of the Model 147 RPV, they are to be used to simulate hostile cruise missile attacks against North America in an Air Force Over-The-Horizon Backscatter (OTH-B) radar test program.

TRA Program Manager Billy Sved said the RPV flights conducted by the 6514th Air Force Test Squadron based at Hill AFB are scheduled to begin late this year or early next spring. Air-launches will be made from C-130 type transport aircraft and recovery by helicopters that snare the RPV in mid-air on completion of its mission.

The Air Force plans to significantly improve the sensitivity of its OTH-B radar by lengthening receiver arrays at the first of four planned radar sites. Meanwhile, it is also preparing to test the surveillance radar's ability to detect and track low-observable threats, using the TRA drones as threat simulators.

Preparations for the drone operations began last year with the start of transfer of stored RPVs from Warner Robbins AFB, Ga. to Hill AFB.

It marks the first time since the mid-1970s that TRA drones of this kind will have been placed in service by the Air Force, Sved said.

He said that an Air Force support contract is expected to be awarded to TRA within 30 days, implementing the organization of an off-site TRA team.

It's responsibilities would include service and support of 6514 Test Squadron operations. TRA employees would be required to fly drone launch missions as well as control their recovery from a ground station.

The drones would be flown at wing pylon stations aboard launch aircraft as far as 500 to 1,000 miles from the eastern seaboard of the United States. At that point they would be air-launched to start their threat simulation presentations.

Sved said that staging of flight operations is likely to be conducted at NAS Roosevelt Roads, Puerto Rico and recovery at Bermuda.

He said that his inspection of the drones taken from storage revealed that they are in "good condition". Only minor refurbishments may be required. Otherwise, "they're ready to fly," he emphasized.

"Our SC versions, designed for low-level reconnaissance use, are as good as ever, despite the technology advances that have been made in electronics since we built them in the decade of the 1970s," Sved noted.

TRA designed, developed and produced a family of RPVs, each configured for specific mission requirements during Vietnam hostilities. It was the evolution by TRA of this drone family that helped create what became popularly known as the era of the RPV.

RPV MISSION unfolds with drone under wing of launch aircraft.

The company's RPV combat operations included the assignment overseas of scores of its employees, serving side-by-side with their Air Force and Navy counterparts. These operations, particularly during poor flying conditions for human aircrews, enabled the U.S. to secure reconnaissance data critical to the success of manned air strikes.

TRA's RPV operations were credited at the close of the Vietnam war with having helped literally thousands of human aircrews escape death or capture through use of unmanned drones instead of manned aircraft.

The RPV's popularity diminished sharply at the end of that conflict with decreased procurement budgets. They have since made a comeback with the introduction of dozens of companies through out the world engaged in development of drones of various sizes for different mission requirements.

SAFELY RECOVERED by helicopter in mid-air, RPV is ferried back to base for refurbishment and repeated use. RPVs can be parachuted into water or land recovery areas.

FOURTH GRADERS created their own version of Ryan "Spirit Of St. Louis" as a classroom project.

FANTASIES BECOME REALITY

'Spirit' Flight Fires Imagination of Pupils

Philadelphia elementary school teacher Bill Bower wants to share with Teledyne Ryan Aeronautical employees this month an experience that he believes may brighten their day.

His fourth grade class at the privately run Friends' Central School last fall selected the History Of Flight as a theme for a student project.

From that theme evolved the assignment to build and "fly" a scale version of the Ryan "Spirit Of St. Louis." The 20-foot model, constructed from cardboard and waste materials took six weeks to complete.

"The Spirit Of Ryan," a book that traces the Lindbergh order with Ryan Airlines, Inc. to build the high-wing monoplane, was used as a reference source in guiding the classroom project.

A make-believe Ryan Airlines, Inc. company was formed. Workers were hired from the class. Metal workers at 65-cents an hour and fabric sewers for 35-cents an hour. Roles were created for Bower's pupils to portray T. Claude Ryan, his lead design engineer Don Hall and other principles identified in the book.

The wage rates, according to Bower, were based on 1927 standards, which produced a major snag in the project about halfway through, Bower explained in a telephone interview.

"The kids couldn't believe in the year 1987 that anybody would work for less than a dollar an hour."

He said that stage money was used to pay the construction workers. And that they went out on strike, calling for the election of a new president of their make-believe company!

"They painted the airplane silver and reproduced an instrument panel as faithfully as possible for the cockpit. That's when the real fun started."

A part of the project included writing exercises. Each of the pupils was able to play the role of Charles Lindbergh, "piloting" their make-believe airplane over a 33½ minute period, representing the 33½ hour flight from New York to Paris by Lindbergh.

The flight logs created by pupils became their writing assignments. They included speed, altitude, course changes and flight experiences.

Adding enthusiasm to the project was a write-up by the Philadelphia INQUIRER and publicity nationwide concerning this year's events commemorating the 60th anniversary of the ocean-spanning flight.

"My kids really got fired up over this project. The more they learned about Mr. Ryan, his company and Charles Lindbergh, the more excited they became," Bower related.

"For all that's been achieved in our manned space explorations and visits to the moon, you'd think the kids would've built a lunar landing vehicle from the Apollo spacecraft days.

"I think it was the romance of pioneering aviation that caught their imaginations. And there is something about the Ryan 'Spirit Of St. Louis' that cast a spell of magic.

Bower believes people throughout America should also share knowledge of his classroom experience. His youngsters, if only through a classroom project, have a deeper pride in American history than could ever be gained from a text book.

"For 33½ minutes, they helped pioneer the age of trans-Atlantic flight!"

Ed Sly Hits Half Century Mark!

A 50-year career at Teledyne Ryan Aeronautical — the only job he's ever held — drew to a close this month for Edward D. Sly, perhaps the most senior aviation-aerospace engineer in San Diego County.

Here for all but 15 of the company's 65 years, the short, stocky man agreed in an interview this month that, "given the chance, I wouldn't change a thing.

"Oh, there are a few situations in which I might've done things a bit differently," smiled Ed, referring to responsibilities he was assigned as a remote control operator for scores of unmanned aircraft. Not all of them flew as designed and, as Ed recalled, "there was always an element of surprise awaiting us on new and old programs alike."

Born at Calexico, Calif., Ed and his brother Bill came to San Diego in 1931 with their parents. He told of attending Memorial Junior high school and graduating from Grossmont high in the years to follow.

"I was always interested in flying...in aviation...and developments that were taking place in the pre-World War II days. The Ryan School of Aeronautics seemed to me a good place to start in learning more about airplanes," Ed related.

At age 16, he enrolled in the school, earning his Aircraft and Engines License two years later. Working by now on the night shift, Ed enrolled at San Diego State College, now SDSU, pursuing a degree in engineering.

By Dec. 7, 1941, he had been assigned to final assembly work on the PT-22 production lines. The company had reconfigured its widely popular Ryan S-T for Army Air Corps trainer use. More than a thousand of the low-wing monoplanes were used to provide primary training for more than 14,000 pilots enrolled in Ryan's School of Aeronautics.

In the years to follow, Ed's assignments included work on the world's first jet-plus-prop fighter plane, the FR-1 "Fireball." Two squadrons were produced and deployed to an aircraft carrier. The war's end came too soon for them to see combat.

HALF-CENTURY of service as TRA employee was recognized formally this month by TRA President Hudson B. Drake (far left) in his presentation of timepiece to Ed Sly. Presentation was witnessed by (from right-to-left) Ken Carson, Darrell Cole and Norm Sakamoto.

A life of field service and support came for Ed in the late 1940s, assignments to Holloman AFB and White Sands, N.M. for development of the company's Firebird, the first air-to-air guided missile. And there would follow by 1951 the introduction of the company's initial Firebee aerial target system, a family of which evolved over the next 25 years.

But there was more than airplanes, flying and field assignments in those days for Ed Sly. He told of an acquaintance with a steno pool employee at the main plant, a friendship that led by 1949 to the marriage of Ed and Marion Sly. And there also were continuing studies that produced after 18 years the degree in engineering that he'd worked so long to earn.

And in time, the Sly family grew to include four children, two girls and two boys. The daughters pursued careers in business and accounting; a son, Edward, is a senior engineer at Convair Astronautics and another son, Robert, is a broadcast journalist. All four, Ed is proud to note, completed college.

Spliced into his career were a series of experimental aircraft development programs, including the X-13 Vertijet, a revolutionary tail-sitting vertical takeoff aircraft that, in 1957 became the world's first development of its kind.

In time, Ed would become one of the company's most skilled remote control technicians, a qualification that led to first flights and record performances by unmanned aircraft with Ed at the controls.

When the Compass Cope high altitude, long endurance aircraft set a world's record at Edwards AFB, Ed was at the control console; when the Firebolt smashed altitude and speed records, it was Sly's knowledge and skill at the flight console that helped win the achievement.

In recent months, spending as much as 90 percent of his time in field service and an estimated 10 percent teaching his skills to others, Ed acknowledged that "my work has been my hobby. We always learned as we advanced. And we flew some pretty sophisticated designs.

Above and beyond all else in terms of reward extracted from his career has been a sense of deep professional and personal respect won by Ed from his colleagues.

TRA Manager of RPVs Dale Weaver, a member of an elite staff of engineers and technicians assigned to RPV combat operations in Southeast Asia, recalls with special fondness the personality that Ed Sly's presence added.

"His was a calming influence in times of indecision or crisis. He was 'Mr. Fix-it,' a methodical, mild-mannered man whom everyone respected. The kind of a man you like to have with you when you come face to face with adversity."

In a mood of pensive recollection on a recent morning this month at Mojave, Calif. where a new product was undergoing flight tests, Ed — as usual — was manning the flight console with Test Director Paul Bunner and Larry Mesecher.

Ten seconds before launch, the flight was aborted. Days of preparations for the flight had been invested by a team of field service and support employees. Tensions had mounted in those final minutes before launch.

"Sure, it's disappointing to go down to the wire and not complete the mission. But that goes with the territory. We pack up, go back to the hangar, sift through our data and make certain our flight goes as scheduled the next time.

"It's a life of exciting challenge, one that's given me far more than I ever expected."

Vol. 133 WASHINGTON, THURSDAY, FEBRUARY 19, 1987 No. 25

Congressional Record

United States
of America

TRIBUTE TO EDWARD D. SLY

HON. BILL LOWERY
OF CALIFORNIA
IN THE HOUSE OF REPRESENTATIVES

Thursday, February 19, 1987

Mr. LOWERY of California. Mr. Speaker, I wish to acknowledge and pay tribute to a sector within America of silent heroes, men and women in our aviation and aerospace community whose professional disciplines, expertise and skills are too seldom identified with heroic deeds and public acclaim.

Mr. Edward D. Sly characterizes and exemplifies the support role filled by our country's aerospace industry workers.

In April 1987, Mr. Sly will observe his 50th anniversary with Teledyne Ryan Aeronautical in San Diego as a fully active aerospace engineer. At age 66, a year past the accepted retirement point in the lives of most Americans, he is contributing knowledge, experience and uncommon levels of dedicated enthusiasm to the future success of his company.

Ed Sly began his career in 1937 with the Ryan School of Aeronautics, working on a series of more than 30 manned and unmanned aircraft built by Ryan in times of peace and war. And for 17 years he attended night school to earn his engineering degree at San Diego State University.

In the process of his work assignments, Mr. Sly developed an expertise of unique qualities as a remote control operator of unmanned aircraft.

This developing technology, along with engineering design and development by his company of remotely piloted vehicles, produced a series of jet-powered aircraft that were used during the Vietnam war for photo reconnaissance missions.

More than 3,000 combat missions were performed by these aircraft, an accomplishment credited with helping spare the lives of countless hundreds of human aircrews that otherwise would have been called upon to fly those high-hazard missions.

The success of those unmanned aircraft in combat created today's age of unmanned vehicle systems. The guidance and control systems are, in a large measure, the result of Ed Sly's pioneering contributions.

He controlled the flight by one of his company's aircraft at altitudes of more than 100,000 feet, offering performance ranges of more than four times the speed of sound. This flight set a world's record in 1984. Earlier, Ed Sly controlled a long-endurance aircraft designed and built by his company that also set a world's record.

In both instances, it was the flight vehicle's accomplishment that attracted public attention, never those like Ed Sly who contributed so fully to the achievements.

Apart from the lengthy distinctions his work over the past half-century represents, is the example of inspiration to others that Ed Sly's career includes.

I am privileged in joining Teledyne Ryan Aeronautical and many in America's aviation-aerospace community in paying tribute to Ed Sly as an individual most responsible today for technical contributions that have helped create our new era of unmanned vehicle systems.

On the occasion of his 50th anniversary of service to his company, I offer my genuine good wishes to Ed Sly for continued good health and success in a career distinguished by his presence.

Army Assigns New Support Roles to Firebee

Engineering Support In Key Areas Told

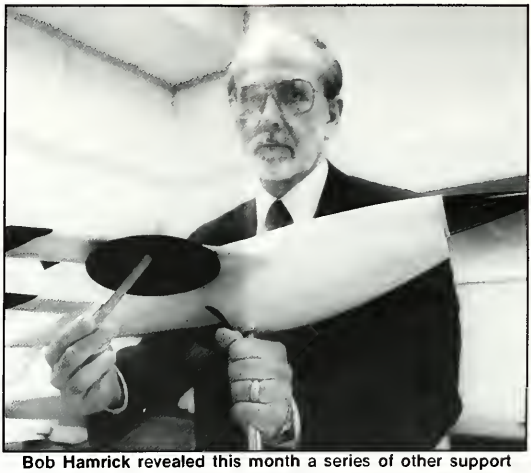
Teledyne Ryan Aeronautical Firebee aerial target systems like those once used to test defense readiness of Hawk missilemen and train Vulcan crews are in use today at the White Sands Missile Range in support of weapon system research, development and evaluation test programs for the U. S. Army Missile Command (MICOM).

A TRA companion effort involves quick-reaction engineering services guided by engineering program manager Bob Hamrick.

He told this month of several key programs in which engineering and equipment enhancements are helping the Army broaden its use of MQM-34D Firebees.

"Key to our success in working with MICOM officals is the knowledge and expertise we possess of Firebee performance capabilities. Because we designed and built them and for 20 years operated them at White Sands, we're the best qualified source in their modification requirements.

"We can move swiftly from a telephone call requirement immediately into a quick-reaction response," notes Bob, using as a reference a current project in which the Firebee's high subsonic speed must be slowed for a brief period to help test the effectiveness of an existing weapon system now undergoing modification and enhancement



Bob Hamrick revealed this month a series of other support programs in which Army MQM-34D Firebees are being modified with engineering changes.

"We designed, developed and have equipped a conventional Firebee with speed brakes, a relatively quick and inexpensive technique that will respond to the test requirements. In the final analysis, the Army can obtain its test data at a cost far less than might otherwise have been required.

Cost-efficient reuse features of the Firebee, a basic quality of appeal since its introduction, is enhanced by performance versatility and reliability, he notes.

There is, for instance, a current requirement that will involve the use of two Firebees, the first serving as a test bed and the second as the primary target. Installed in the test bed Firebee will be a new weapon system seeker/guidance package. Costly and unique, it will be retrieved from the Firebee after the mission is completed, a testing process that if used in a missile would be expended.

Installed also will be a near-miss distance measuring system that eliminates requirements for a direct hit on the target. Near-miss data will be used to determine the seeker/guidance system's effectiveness. By using Firebees, which offer long-duration flight capabilities, repeated tests can be conducted in a single mission offering data verification.

The test bed Firebee will also be equipped with TRA's newly-developed digitalized flight control system utilizing a pre-programmed flight profile.

Yet another project involves the design and development by TRA's engineering team of twin flare dispensing pods that will be mounted beneath the Firebee wings. The ponds contain digitalized dispensing programmers that deploy flares in a multi-directional format on command from a ground control station. The project will be conducted as part of a counter-measures system development.

One project follows the development over several years of an engine plume enhancement system to simulate the infrared characteristics of the plume from a threat source.

"What we had to develop was a plume length, color, intensity and intensity variations using enhancement techniques adapted to the MQM-34D's installed J-85 engine as the basic source," explained Hamrick.

The enhancement system creates characteristics of a threat source during target presentations and is commanded during presentations from a ground control station.

Typically, according to Hamrick, it is the Firebee that performs missions "too tough" or beyond the capabilities of other target systems in these flight test realms.

It was a decade and more ago that TRA introduced its Firebee-Towbee aerial target systems for use in support of Vulcan air defense systems at the Army's Air Defense Training Center. The Firebee, acting as a tractor, deployed its Towbee targets mounted on each wingtip, towed the targets for Vulcan gunnery training.

TRA "Gypsy" Firebee teams once traveled worldwide, staging Firebee operations in support of annual Hawk service practice firings for U.S. Army as well as Free-World Hawk battery crews.

"Our service on the Army team is distinguished by many years of support in areas of research and development as well as training requirements, at WSMR and other locations. This resumed activity comes, in my mind, as a testimonial to our past performance.

"The difference now is that we're helping develop through engineering contributions as well as our Firebees, a whole new future Army capabilities for generations to come," Bob concluded.

MQM-34D FIREBEE with wing-mounted TowBee targets was once used to support Army air defense training. Today's Firebees support weapons systems modification and development program at White Sands Missile Range, N.M.

The SOURCE
TELEDYNE RYAN MANAGEMENT ASSOCIATION

29 End 'Action Management'

Two classes of 29 Teledyne Ryan Aeronautical supervisory employees concluded nine weeks of "Action Management" studies Apr. 15 conducted on-site by San Diego State University faculty members.

The 40-hour, accredited course, introduced initially in September 1986, is offered quarterly to all supervisory employees, according to Nicki DeNecochea, TRA Human Resources Training administrator.

Included in the April graduating classes were: Collie Gregoire, Carl Wilson, Dan Gould, Rod Logue, Steve Kelch, Mike Romo, Greg Montoya, J. Vang, S. Cooper, Alex Blackmon, J. Wright, P. J. Chavez and G. W. Combs.

Also enrolled were Dave Detwiler, Joe Martinez, Bobbie Everett, Bob Gebhard, John Brophy, Bud Hemmerly, R. Cole, R. Roberts, Joe Hearn, Ken Kautz, F. T. Gonzalez, L. R. Sanchez, D. Kelly, Wayne Hopkins, J. Pisciotta and Rod Stewart.

Candidates Named For 1987-88

Dave Haltermann heads the slate of candidates for 1987-1988 terms of Teledyne Ryan Aeronautical Management Association offices, according to TRMA President Larry Montali.

He said that past-Presidents Walt Hamilton and Pete Lopez participated in the selection of 22 candidates.

Included for Vice President are Bob Gresham and Terri Tebbetts; Recording Secretary, Sandy Howard and Sheila Nicholson; Treasurer, Carl Cobb and Charles Richardson; Financial Secretary, Jean Cady and Ethel Maricle.

Candidates to fill offices of Director include: Dennis Bolger, Nicki DeNecochea, Dave Hudspeth, Neila Jordan, Ann Kolva, John McKechnie, Scott Milner, Jim Pisciotta, John Romero, Bryan Schmidtberger, Karen Shepherd, Bill Sneddon and Ray Vitkus.

Speakers Eyed For Programs

A candidate list of program speakers has been identified by Dave Haltermann and Terri Tebbetts following a series of presentations offered Mar. 13 by a Speakers Showcase held at National University.

Sixteen speakers presented sample talks under a program sponsored by the San Diego Area Council of the National Management Association.

Talks on motivation, memory, effective writing, communications, alternatives to violence and team power were included in the presentations.

In their report, Haltermann and Tebbetts included four candidates as potential speakers for TRMA meetings: They included Nicole Reynolds: "Alternatives to Violence"; Kit Summers: "Juggling With Finesse — Goals For Life and Other Important Matters"; Bruce Sievers: "An American In Love With His Country"; and Candy Cummings: "Winning At Home Plate."

Those speakers listed, according to Haltermann, would be suitable as Spotlight Speakers and will be sought for dinner meeting during the balance of this year.

'WalkAmerica' Seeks TRA Help

Team members to participate in this year's "WalkAmerica" Walk-A-Thon, an annual March of Dimes benefit that will be held Sunday, Apr. 26, are being sought from Teledyne Ryan Aeronautical ranks this month.

Sheila Nicholson, Ext. 1307, recalled that last year's TRA entries were represented by individual employees. "This year, we want to enter as a TRA team, helping raise money for a very worthy cause."

An estimated 6,000 entries were registered last year in the Walk-A-Thon that starts at Fiesta Island and covered 32 kilometers, raising $365,000 for the March of Dimes.

Team members will receive T-shirts, and prizes in a variety of categories will be offered.

The SOURCE is produced monthly by the Teledyne Ryan Aeronautical Management Association to inform, educate and promote the principles and ideals of successful management within its membership. Queries, contributions and news items are welcomed and should be addressed to the SOURCE Editor.

* * * * *

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Jr. Achievement Project Launched

Taft Junior High School pupils are learning some of Carl Cobb's "real world" facts of life through a Junior Achivement project that includes visits by the Teledyne Ryan Aeronautical quality engineer into the classroom for one-hour sessions each Tuesday.

Ninth graders in Carl Perrera's class have launched six companies under Cobb's direction, engaged in marketing analysis and research, structured their management organizations and established their product lines.

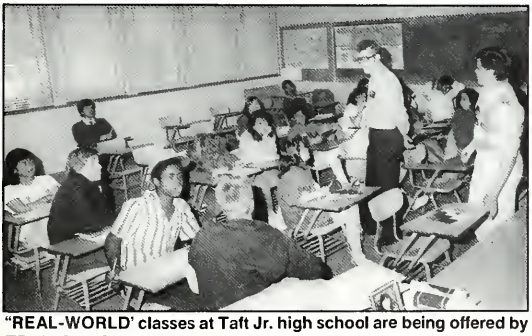
"Now is when the fun starts!" reported Cobb this month, telling of the spirited competition between the student-run companies.

Through special arrangements with his supervisor, Jim Herrera, Cobb, himself a father of two youngsters, is able to devote several hours weekly to the project. But the major share of his preparation time comes during his leisure hours in the evening, notes the San Diego native.

"The way I look at it, these kids may someday become our employees. The more they understand about the business world — as it exists — the better prepared they're going to be in assuming adult responsiblities," Cobb emphasizes.

His Junior Achievement class will run through the end of May. Between now and then, the "paper" companies will determine operating costs, profit margins and establish business procedures that commit students to obligations not unlike "real world" conditions, according to Carl.

Divided into "team companies," Cobb relates how each team voted on what their product lines would be. One team selected as its product skateboards, another is producing women's sportswear, and two others decided to produce Apache helicopters!



'REAL-WORLD' classes at Taft Jr. high school are being offered by TRA's Carl Cobb as part of a Junior Achievement.

COMMITTEE ACTION is what guided Open House program. Bob Gresham (far right) headed group that planned and developed program for Saturday, Apr. 25 activities in observance of TRA's 65th anniversary year.

Service Anniversaries

50 YEARS

Ed Sly

20 YEARS

J. B. Anderson

15 YEARS

G. E. Watson

30 YEARS

D. R. George
J. O. Price
R. E. Nelson

5 YEARS

I. O. Elias
L. V. Hagberg

MOVING UP!

Note: The following promotions became effective in February 1987.

A. H. BAKHSHI ..... Industrial Engineer, Sr.
T. EVANS ..... Project Coordinator
R. P. JASENIUK ..... Technical Specialist
D. NELSON ..... Administrative Accountant
E. H. PHARES ..... Tool Project Engineer

The balance are promotions effective March 1987

A. J. BORDENAVE ..... General Administration Intern III
R. W. GUDE ..... Tool Project Engineer
J. L. HAWKINS ..... Tool & Manufacturing Engineer
D. L. HAUGH ..... Tool & Manufacturing Engineer
D. KUBEK ..... Sr. Human Resources Clerk
J. T. MONTISANO ..... Project Industrial Engineer
D. MUNKE ..... Engineering Test Assistant
N. MURO ..... General Administration Intern III
L. G. MURPHY ..... Factory Supervisor VI
R. H. NIKOLAI ..... Project Industrial Engineer, Sr.
M. L. POOLE ..... Tool & Manufacturing Engineer
R. W. STENAVICH ..... Tool & Manufacturing Engineer
R. R. TAYLOR ..... Project Coordinator
A. VAKILI ..... Project Industrial Engineer
R. J. VITKUS ..... Tool & Manufacturing Engineer

Ron Duke

TRA Safety Administrator

I wonder sometimes if we know why anybody goes to the bother of creating safety rules. Surely, they're not designed to benefit the Safety Department. In fact, it should be clear that they exist for you and me, right here on the job.

We're the ones who suffer consequences of accidents, not those in our front offices. So, it figures that we're the ones who stand to benefit most from following safety precautions, right?

Think about this logic: the pain, loss of income and related penalties imposed by injury accidents is suffered not by safety people, the bosses, but you and your family.

It's why it is so important to follow the rules. They are made for us — you and me.

And let me emphasize that our rules evolved as a result of one or more accidents. They are based on experience and incidents of accidental injuries.

Safety is a matter of human behaviors; either you play it smart in following rules that someone else has produced as a result of prior accidental injuries. Or, you trust your luck. Sometimes, luck is the only thing one has going for him or her. And that's a mighty thin margin on which life can be protected.

Experts in industrial safety say that rule violations can be recorded as much as 300 times without an accident incidence.

You may even go as far as 29 more times without an accident. And then, a slight deviation from the rules may only inflict a scratch or bruise.

Then, whammo! All your past violations catch up with you on the very next time out. That's when major injuries or even death can occur.

So, why gamble? The statistics are already there for anyone to examine. Violate safety rules and it's certain that sooner or later, you'll become a statistic.

Tina Curtiss

TRA Employee Services

Merchandise discounts through your Employee Store now range from 35 to 60 percent with the latest five percent more that's been added. And our stocks are growing!

Adult and children sized Apache T-shirts and caps, F/A-18 shirts plus jackets and sportwear are now available at these reduced prices.

And something new has been added: a selection of souvenir photos of our Apache and other product lines are now offered through the Store!

Details are upcoming on an Aug. 1 beach party! Flyers will be distributed as quickly as all the arrangements have been made. In the meantime, your suggestions and comments are invited in helping determine what kinds of merchandise and activities are desired.

To better acquaint TRA employees with our inventory, we're moving the Store outdoors for the open house program. Stop by and browse!

But don't forget: We're open Monday, Wednesday and Friday from 11:30 a.m. until noon and from 4:00 to 4:30 p.m. Our Tuesday and Thursday hours are from 7:30 a.m. to 8:00 a.m. and again from 11:30 a.m. until noon.

'Speak Up!'

Praise, Gripes, Advice? Speak Up!

Elected office holders from federal, state and local levels of government have been invited to participate in our Open House program Saturday, Apr. 25. What's on your mind that you'd like to tell them? What advice can you offer for better government? What pleases or angers you about the lawmaking process?

CHUCK PREBLE, Art Services- *"My gripe is that the lawmaking process is too slow to react. By time a solution is reached, the problem is no longer a concern. This applies to all levels of government. I admire those in public service for the tasks they face. I sure wouldn't want their jobs!"*

JESS MACIAS, Environmental Affairs Manager- *"I'm concerned about the management of environmental affairs and the highly complex regulatory measures we're faced with today. There is no simple, clear focus of direction offered by a single source of authority. We're dedicated to meeting all environmental standards and are devoting our resources to that objective."*

JOHN PINKNEY, Bonded Structures- *"I believe that broader measures of accountability should be exercised by office holders at all levels of government. And particularly at our state government level. There also needs to be more identification given to the spiritual values on which our Constitution is based. I believe that all solutions to problems can be found through use of spiritual guidance."*

VIVIAN POSADA, Apache Assembly- *"I'm concerned about congressional funding needed by the Army to buy Apaches. This involves our jobs and a key Army program. At the state level, I do not wish to see public education funds cut. Locally, rising crime rates and law enforcement issues are of growing concern to everyone in San Diego."*

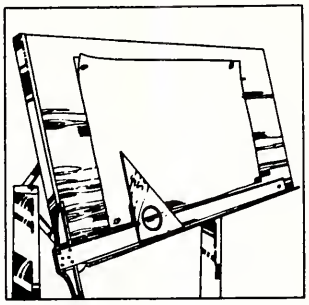
JO ANN SAULS, F/A-18 Assembly- *"A key concern is the needs for funding the Army's procurement of Apaches. It would be a disgrace to see this program die at the half-way point. I'm anxious to see the state enact the 65 MPH speed law, now that federal government has passed it. Locally, we've got to push on in our anti-drug programs."*

JIMMIE THOMAS, Plastics- *"Generally, I'm satisfied that our elected officials are doing a good job. I think they needed the pay raise they got this year. But, I'd like to see more honesty in our city and state government. And I think there ought to be more spiritual interest shown in our lawmaking process."*

CHRYSTAL CHOSTNER, Pricing- *"We're too interested in the letter of the law rather than the spirit and intent. Our justice system, as currently exercised is impractical. I think our system is facing its severest test. The burden of responsibility for correcting our lawmaking problems belongs to our office holders."*

DAVE PATAG, Materials & Processing Lab- *"Our law makers are doing a good job, generally. Our laws serve the majority interest, the way they should. For sure, no one is going to always please everyone all the time. It is my belief that our system is working."*

There's nothing on the drawing boards today to replace the Apache.



Should we really consider a halt in production of this one-of-a-kind weapon? Make no mistake: The U.S. Army's new Light Helicopter—LHX—in scout/attack and utility versions will be the most technologically advanced aircraft of its kind ever to fly. Years of research in avionics, sensors, composites, and crew station design—all will bear fruit in the LHX.

But for sheer power to put missiles on target in the large numbers required—day or night, in adverse weather—there is nothing but Apache, for many years to come.

The fact is, the AH-64 Apache and LHX are two distinctly different weapon systems with separate assignments in the Army's battle plans for the next decade and beyond. And while the Apache is being fielded today, the LHX is not due to enter the Army's operational forces until the mid 1990s.

The Army intends to buy more than 4,000 LHX aircraft. Congressional approval of funding and development are pending.

And the Apache? Unless new funds are authorized soon for the long-lead-time parts required, Apache production will cease in 1989. At 593 aircraft. With nothing else like it waiting in the wings. And with total procurement less than half the Army's requirement of 1206 Apaches.*

Apache and LHX provide complementary capabilities. There is ample need for both weapon systems.

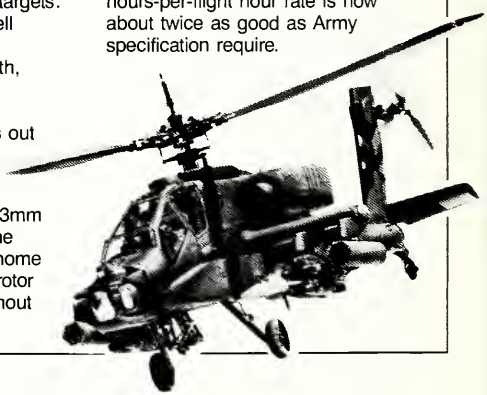
*Congressional testimony, September 1985.

Apache owns the night. The mission of the Apache is to stop the enemy's movement of troops and weapons under the cover of darkness. To do this, its advanced sensors seek out, identify, and lock into targets several miles away. In total darkness.

No armor is immune. These "eyes" are teamed with armament for the job. Laser-guided Hellfire missiles penetrate any known armor. Turreted 30mm automatic cannon and 70mm rockets add substantial firepower against airborne as well as ground targets.

With speed and agility well beyond Army specifications, Apache flies nap of the Earth, using the terrain as well as electronic jammers to avoid enemy detection as it seeks out targets.

Built to survive. Even with a "worst case" 23mm hit on a main rotor blade, the Apache can fly back to its home base. There, the damaged rotor blades can be replaced without using any tool. In fact, the Apache's maintenance-man-hours-per-flight hour rate is now about twice as good as Army specification require.



MCDONNELL DOUGLAS

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